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Applicant(s): Kelly et al.

Docket No.

MCA-489 US

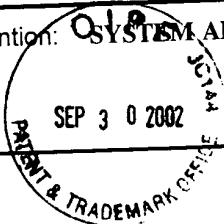
Serial No.  
09/759,920

Filing Date  
01/12/2001

Examiner  
Krishnan Menon

Group Art Unit  
1723

Invention: **SYSTEM AND METHOD FOR LIQUID FILTRATION BASED ON A NEUTRAL FILTER MATERIAL**



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICANT: Kelly et al.

GROUP ART UNIT: 1723

SERIAL NO.: 09/759,920

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TITLE: SYSTEM AND METHOD FOR LIQUID FILTRATION BASED  
ON A NEUTRAL FILTER MATERIAL

Commissioner for Patents  
Washington, D.C. 20231

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Sir:

AMENDMENT

Responsive to the Office Action of July 3, 2002, please enter the following amendments and remarks. Please amend the application as follows:

IN THE CLAIMS

Applicants' invention is based on the discovery that particles in a fluid, regardless of particle charge can be removed by filtration with a porous filter by rendering the surfaces of the filter substantially neutral, as measured by Zeta Potential, in the fluid to be filtered. Applicants have found that the filtrate is not effected by a sieving effect but rather by Van der Waals forces. None of the prior art recognizes this phenomenon. This recognition permits the use of filters having pore sizes larger than would have been used by the prior art thereby permitting higher throughput rates through the filter.

The claims have been amended to define the fluid having a pH greater than about 4. This is due to the fact that a Pall Superetch filter (Table III, page 15 and Fig. 5 of applicants' application) provides a neutral filter in a fluid having a pH of 3 or less. This result appears to be by serendipity rather than being based upon the recognition that a filter having a neutral surface provides certain advantages provided by applicants since no such disclosure is provided by Pall. Accordingly, applicants invention permits filtering fluids having any pH by operating in the manner set forth in new claims 32-57.